

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-30. (Canceled)

31. (Currently Amended) A reaction mixture ~~for performing protein synthesis reactions, the reaction mixture~~ comprising an *E. coli* S-30 extract combined with a supplemental mix ~~comprising containing~~ buffer, salts, ~~nucleoside nucleotide~~ triphosphates, and an energy source, the S-30 extract prepared by the process of

- (a) growing *E. coli* cells in culture;
- (b) collecting the cells;
- (c) resuspending the cells in an aqueous solution;
- (d) processing the resuspended cells to release their contents by lysis,
- and
- (e) centrifuging the cell lysate, the supernatant being the S-30 extract;

wherein the reaction mixture, after preparation, is further processed by the step of fractionating the reaction mixture by freezing, thawing and centrifugation.

32. (Currently Amended) A reaction mixture ~~for performing protein synthesis reactions, the mixture~~ comprising an *E. coli* extract containing *E. coli* transcriptional and translational components combined with a supplemental mix comprising buffer, salts, ~~nucleoside nucleotide~~ triphosphates and an energy generating system, wherein the *E. coli* extract is ~~transcriptional and translational components being made up of the material which is in~~ the supernatant of lysed and centrifuged *E. coli* cells, the reaction mixture having the degradosomes substantially removed therefrom.

33. (Canceled)

34. (New) The reaction mixture of claim 32 wherein the supplemental mix further comprises amino acids.

35. (New) The reaction mixture of claim 32 wherein the supplemental mix further comprises phosphoenol pyruvate.

36. (New) The reaction mixture of claim 32 wherein the supplemental mix further comprises polyethylene glycol.

37. (New) The reaction mixture of claim 36 wherein the polyethylene glycol is PEG 8000.

38. (New) The reaction mixture of claim 32 further comprising T7 RNA polymerase.

39. (New) The reaction mixture of claim 32 wherein the reaction mixture is frozen.

40. (New) The reaction mixture of claim 32 wherein the reaction mixture is dried.

41. (New) A method of making the reaction mixture of claim 32 comprising  
(a) lysing *E. coli* cells and centrifuging the lysate to produce an *E. coli* extract;  
(b) combining the *E. coli* extract with a supplemental mix to form a combined solution, wherein the supplemental mix comprises buffer, salts, nucleoside triphosphates, an energy generating system, and a precipitating agent that preferentially precipitates high molecular weight molecules;

(c) centrifuging the combined solution and separating the supernatant to make the reaction mixture.

42. (New) The method of claim 41 wherein the precipitating agent is polyethylene glycol, polyethyleneimine, or colloidal particles.

43. (New) The method of claim 41 wherein the precipitating agent is polyethylene glycol.
44. (New) The method of claim 41 wherein the polyethylene glycol is PEG 8000.
45. (New) The method of claim 41 further comprising treating the E. coli extract with micrococcal nuclease to degrade endogenous nucleic acids.
46. (New) The method of claim 41 further comprising freezing and thawing the combined solution prior to step (c).
47. (New) The method of claim 41 wherein the E. coli cells are cultured with isopropyl  $\beta$ -D-1-thiogalactopyranoside prior to lysis.
48. (New) The method of claim 41 further comprising placing the reaction mixture into containers for commercial sale.